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09/607,584	06/29/2000	Bruce Wilford	81862.P183	9074

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EXAMINER

JAROENCHONWANIT, BUNJOB

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 07/09/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/607,584

Applicant(s)

WILFORD ET AL.

Examiner

Bunjoo Jaroenchonwanit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections – 35 U.S.C. 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A purpose of using the specified types of ports, critical or essential to the practice of the invention, but not included in the claim is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The statement "percentage of a maximum count value" in claim 2 renders the claim indefinite, because a specific range for which the percentage should lie in is not provided, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Also, Claim 2 recites "a maximum count value". This renders the claim indefinite because it is unclear which "count value" the claim is referring to.

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6. Regarding claim 5, the statement “placing a logical connection identifier” renders the claim indefinite because it is unclear where or what element the ‘logical connection identifier’ is being placed thereto.

7. Regarding claim 7, the term “statistics” is stated more than once. It is unclear what this term refers to in the claim, and also whether or not it refers to the same statistics throughout the claim.

Claim Rejections – 35 U.S.C. 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4, 7-10, 13-16, 19-24, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer et al. (U.S. Patent No. 6,304,900) in view of applicant’s admitted prior art (AAPA).

10. Regarding claim 1, Cromer discloses a method for a network, the method comprising:

counting statistics (Cromer- column 3, lines 32-34);

determining if a count value is above a threshold (Cromer- column 3, lines 34-38);

collecting statistics for count values above the threshold before count values below the threshold (Cromer- column 3, lines 36-42).

Cromer does not explicitly implement its counting concept to count for connections. However, the applicant admitted that collecting statistics about connections is a common operation and that counters are currently being used to count for connections (pages 1-2 of applicant's background).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to modify the system, capable of counting and collecting statistics, as taught by Cromer, to count other network events as well, such as, connections. One would have been motivated to do this to be able to compare these values to thresholds and cause reactions in the network based on these comparisons.

11. Claim 7 recites an apparatus corresponding to the method of claim 1. The required limitations correspond to the limitations discussed in method claim 1.

In addition to the same rationale discussed for claim 1 above, Cromer further recites counters and a processor. (Cromer- figure 2, references 200, 330 and 331).

12. Claim 13 recites a network interface corresponding to the method of claim 1. The required limitations correspond to the limitations discussed in method claim 1.

In addition to the same rationale discussed for claim 1 and 7 above, Cromer further recites a memory (Cromer- figure 2, references 204 and 206).

13. Claim 21 recites an apparatus whose limitations correspond to the limitations of claim 7. Therefore, using the same rationale as for claim 7, claim 21 is rejected.

14. Claim 27 recites a statistics collection module whose limitations correspond to the limitations of claim 13. Therefore, using the same rationale as for claim 13, claim 27 is rejected.

15. Regarding claims 2, 8, 14 and 22, Cromer-AAPA discloses all of the present invention above including the establishment of a counter threshold. However, Cromer-AAPA fails to state the use of a percentage of a maximum count value as a threshold.

Because of the broadness of the claim, the threshold is not restricted to any value in particular. Rather, it is simply limited to a maximum count value. In other words, the threshold could be anywhere between zero and any maximum count value. It would simply be a matter of design choice what value to assign to the threshold.

16. Referring to claims 3, 9, 15 and 23, Cromer-AAPA discloses sending an interrupt signal when having a determined count value above the threshold (Cromer- column 3, lines 36-42).

17. Referring to claims 4, 10, 16 and 24, Cromer-AAPA discloses collecting statistics from counters with corresponding interrupt signals before other counters with no corresponding interrupt signals (Cromer- column 3, lines 36-42).

18. Regarding claim 19, Cromer-AAPA discloses the present invention substantially as claimed, as described in claim 13. Although Cromer-AAPA fails to explicitly state the use of a port for transmitting and receiving data, this component is deemed to be inherent to the Cromer-AAPA system. The system would be inoperative if a port was not included, since it is essential for receiving and forwarding data in a network environment.

19. Regarding claim 20, Cromer-AAPA discloses the invention substantially as claimed, as described in claim 19, but fails to include using OC ports, STS ports and SDH ports. Official Notice (see MPEP ' 2144.03 Reliance on "Well Known" Prior Art) is taken that OC ports, STS ports and SDH ports were well known in the art and have been used for forwarding and receiving data in network devices.

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Thus, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to specify the use of the OC ports, STS ports and SDH ports, to transmit and receive data in a heterogeneous network, in order to expand and enhance the utility of the device.

20. Regarding claim 28, Cromer-AAPA discloses all of the present invention substantially as claimed, as described in claim 27, however fails to explicitly state that the CPU counters are wider than the module counters.

It is inherent that a CPU has a fixed size for its internal counters, which depends only on the type of processor available in the market at a specific time of purchase. To choose a module (external) counter of smaller size would be intuitive in this type of operation because it would minimize CPU read cycle. Obtaining information from smaller external counters would require less machine cycle than obtaining information from external counters larger than CPU internal counters.

It would have been obvious to one of ordinary skill in the art, at the time of the applicant's invention that choosing a smaller size for the module (external) counters would have been a matter of design choice, in order to expedite processing time.

21. Claim 29 is rejected based on the same analysis for claim 28. The CPU's internal counter size of 64-bits is an inherent characteristic of the CPU. Setting the module counter size to 32-bits would be intuitive because it would reduce the time necessary to transfer data to the CPU.

It would have been obvious to one of ordinary skill in the art, at the time of the applicant's invention that choosing a size of 32-bits for the module (external) counters would have been a matter of design choice, in order to expedite processing time.

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22. Claims 5, 6, 11, 12, 17, 18, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer-AAPA in view of Taguchi et al. (U.S. Patent No. 6,539,432).

23. Regarding claims 5, 6, 11, 17 and 25, Cromer-AAPA discloses all of the present invention substantially as claimed, as described in claim 3 and further states the use of a first-in-first-out buffer (Cromer- figure 3, references 306, 308 and 310). However, Cromer-AAPA fails to explicitly teach using logical connection identifiers to identify a specific connection for its corresponding data.

In an analogous art, Taguchi teaches the use of logical connection identifiers to “set a logical connection specifying at least one of a source and a destination between an ingress and an egress of a connection”. (Taguchi- column 1, lines 55-61 and column 6, lines 22-28).

It would have been obvious to one of ordinary skill in the art, at the time of the applicant’s invention to specifically state that a logical connection identifier would be used in Cromer-AAPA’s method of sending an interrupt signal. One would have been motivated to make such specification in order to successfully give priority to identified connections when transferring data.

24. Regarding claims 12, 18 and 26, Cromer-AAPA discloses all of the present invention substantially as claimed, as described above and further states the use of a memory (Cromer- figure 2, references 204 and 206). Also, the applicant has disclosed, in the background of the invention, the use of a memory to store the statistics, as a common operation.


25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bunjob Jaroenchonwanit whose telephone number is (703) 305-9673. The examiner can normally be reached on 8:00-17:00.

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26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (703) 308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

/jb
July 2, 2003



B. JAROENCHONWANIT
PRIMARY EXAMINER